

# Exhibit A

**TRANSLATION****PATENT COOPERATION TREATY****PCT****INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>0000055413</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/EP2005/002427</b>	International filing date (day/month/year) <b>08.03.2005</b>	Priority date (day/month/year) <b>10.03.2004</b>
International Patent Classification (IPC) or national classification and IPC <b>C07D487/04, A01N43/90</b>		
Applicant <b>BASF Aktiengesellschaft</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of _____ sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows:	
<input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2005/002427

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

**V.1 Cited documents**

- D1: EP-A-0 141 317 (BASF AKTIENGESELLSCHAFT)  
15 May 1985 (1985-05-15)
- D2: WO 03/009687 A (BASF AKTIENGESELLSCHAFT);  
TORMO I BLASCO, JORDI; SAUTER, HUBERT; MUELLE)  
6 February 2003 (2003-02-06)
- D3: EP-A-0 215 382 (BASF AKTIENGESELLSCHAFT)  
25 March 1987 (1987-03-25)
- D4: GB-A-1 148 629 (VEB. DEUTSCHES HYDRIERWERK  
RODLERBEN) 16 April 1969 (1969-04-16)
- D5: EP-A-0 770 615 (AMERICAN CYANAMID COMPANY;  
BASF AKTIENGESELLSCHAFT) 2 May 1997  
(1997-05-02)
- D6: EP-A-0 614 113 (MITSUBISHI PAPER MILLS, LTD;  
MITSUBISHI PAPER MILLS LTD) 7 September 1994  
(1994-09-07)

The same designations will be used throughout the procedure.

**V.2 Novelty**

The subject matter of claims 1-10 is encompassed in

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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generic terms by the subject matter of claims 1-6 of document D1. However, there are no specific individual compounds in D1 which fall within the present claims, since the  $R^2$  radical in D1 is verified only as  $CH_3$ ,  $n-C_3H_7$  or  $n-C_4H_9$ .

The subject matter of the present claims differs from the disclosure in D2 by the definition of the  $R^2$  group, which corresponds to the X group in D2.

The subject matter of the present claims differs from the compounds disclosed in D3 in that the radical corresponding there to the  $R^1$  group always bears an aryl group.

In the compounds disclosed in D4, the alkyl group corresponding to  $R^1$  only has a maximum of 4 carbon atoms. The intermediates of the formulae IV and V claimed in the application are encompassed in generic terms by the subject matter disclosed in D5. In the compounds mentioned specifically in D5, however, the radical corresponding to the  $R^1$  group is phenyl. D6 discloses two compounds which differ from the intermediates of the formula IV only with regard to the  $R^2$  radical. The subject matter of all present claims is therefore novel.

### V.3 Inventive step

**V.3.1** According to the description, the problem underlying the application is considered to be that of providing 5,6-dialkyl-7-aminotriazolopyrimidines which are superior in their fungicidal action to the similar compounds known from D1.

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

**V.3.2** Relevant prior art for the subject matter of claim 1 is the documents D1 to D3, since they disclose fungicidally active 7-aminotriazolopyrimidines. The structurally closest prior art is D1, since it discloses compounds which, with regard to the  $R^2$  group, differ from the compounds now claimed, which bear an ethyl, ethenyl or allyl group, in that they bear an n-propyl group or an n-butyl group (D1, compounds 21, 23, 42 and 48). The compounds according to the application which bear ethyl as the  $R^2$  group are encompassed in general terms even by D1 (see D1, page 2 lines 1-5).

**V.3.3** A person skilled in the art faced with the problem defined above would certainly be induced by the general disclosure from D1 to prepare novel compounds which, though, are within the generic disclosure of D1, while being able to assume that these compounds would likewise have fungicidal properties. This is precisely what has been done in the present case, and it is therefore unsurprising that the compounds according to the application actually have fungicidal action.

**V.3.4** However, the applicant has submitted tests with which particular compounds according to the application are compared to the structurally closest compounds from D1. It is evident from these tests that some preferred embodiments of the compounds according to the application, specifically those now claimed in which  $R^2$  has particular definitions, have an unexpectedly higher activity. When, in compounds from D1, ethyl is introduced for the methyl radical which corresponds to  $R^2$ , the compounds thus formed have a significantly

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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improved activity against late blight in tomatoes. The replacement of propyl by allyl also leads to significantly improved action. Compounds according to the application which bear the radicals mentioned therefore solve the problem defined above in a non-obvious manner. An inventive step can therefore be acknowledged for them.

**V.3.5** An improved activity as a result of the  $R^2$  radical = ethenyl has not been shown specifically and is therefore doubtful. Introduction of the  $R^2$  radical = ethenyl has therefore solved a problem different from that defined above, specifically merely the provision of **further** (not necessarily improved) fungicidally active 5,6-dialkyl-7-aminotriazolopyrimidines. However, the ethenyl derivatives are neither disclosed nor suggested in D1, such that the involvement of an inventive step can be acknowledged for these compounds too owing to their non-obvious structure. However, it is emphasized that, owing to the different technical problems solved (*compounds where  $R^2$  = ethyl or allyl have an unexpected technical effect, namely improved action; compounds where  $R^2$  = ethenyl have a non-obvious structure and therefore constitute further compounds not suggested by the prior art*), the ethyl and allyl derivatives on the one hand and the ethenyl derivatives on the other hand are based on two different inventive concepts, as a result of which the subject matter of the claims must be designated as **lacking unity of invention**.

**V.3.6** It remains to be emphasized that inventive step can be acknowledged for substance claims 1-4 and the use claims 8 to 10.

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

**V.3.7**        The processes disclosed by process claims 5 and 7 are analogous to those disclosed in D1; the intermediates encompassed by claim 6 too are analogous to those from D1. However, an inventive step can likewise be acknowledged for claims 5 and 7, and also 6, since the intermediates claimed are converted to inventive end products with the aid of the processes claimed.

**V.4            Industrial applicability**

The subject matter of claims 1-10 is industrially applicable.

(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES  
PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum  
Internationales Büro



(43) Internationales Veröffentlichungsdatum  
22. September 2005 (22.09.2005)

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(10) Internationale Veröffentlichungsnummer  
**WO 2005/087773 A1**

(51) Internationale Patentklassifikation<sup>7</sup>: **C07D 487/04**,  
A01N 43/90 // (C07D 487/04, 249:00, 239:00)

(21) Internationales Aktenzeichen: **PCT/EP2005/002427**

(22) Internationales Anmeldedatum:  
8. März 2005 (08.03.2005)

(25) Einreichungssprache: **Deutsch**

(26) Veröffentlichungssprache: **Deutsch**

(30) Angaben zur Priorität:  
10 2004 012 011.0 10. März 2004 (10.03.2004) **DE**

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(81) Bestimmungsstaaten (soweit nicht anders angegeben, für  
jede verfügbare nationale Schutzrechtsart): **AE, AG, AL,**  
**AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,**  
**CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES,**  
**FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,**  
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**MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,**  
**PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,**  
**TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,**  
**ZM, ZW.**

(84) Bestimmungsstaaten (soweit nicht anders angegeben, für  
jede verfügbare regionale Schutzrechtsart): **ARIPO (BW,**  
**GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG,**  
**ZM, ZW), eurasisches (AM, AZ, BY, KG, KZ, MD, RU,**  
**TJ, TM), europäisches (AT, BE, BG, CH, CY, CZ, DE, DK,**  
**EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL,**  
**PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI,**  
**CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

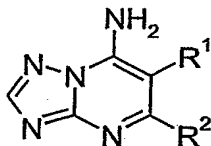
Veröffentlicht:

— mit internationalem Recherchenbericht

Zur Erklärung der Zweibuchstaben-Codes und der anderen Ab-  
kürzungen wird auf die Erklärungen ("Guidance Notes on Co-  
des and Abbreviations") am Anfang jeder regulären Ausgabe der  
PCT-Gazette verwiesen.

(54) Title: **5,6-DIALKYL-7-AMINO-TRIAZOLOPYRIMIDINES, METHOD FOR THEIR PRODUCTION, THEIR USE FOR  
CONTROLLING PATHOGENIC FUNGI AND AGENTS CONTAINING SAID COMPOUNDS**

(54) Bezeichnung: **5,6-DIALKYL-7-AMINO-TRIAZOLOPYRIMIDINE, VERFAHREN ZU IHRER HERSTELLUNG UND  
IHRE VERWENDUNG ZUR BEKÄMPFUNG VON SCHADPILZEN SOWIE SIE ENTHALTENDE MITTEL**



plant-pathogenic fungi.

(57) Abstract: The invention relates to 5,6-dialkyl-7-amino-triazolopyrimidines of  
formula (I), in which the substituents are defined as follows: **R<sup>1</sup>** represents alkyl  
or alkoxyalkyl, whereby the aliphatic groups can be substituted according to the  
description; **R<sup>2</sup>** represents **CHR<sup>3</sup>CH<sub>3</sub>**, cyclopropyl, **CH=CH<sub>2</sub>** or **CH<sub>2</sub>CH=CH<sub>2</sub>** and  
**R<sup>3</sup>** represents hydrogen, **CH<sub>3</sub>** or **CH<sub>2</sub>CH<sub>3</sub>**. The invention also relates to a method for  
producing said compounds, to agents containing the latter and to their use for controlling

(57) Zusammenfassung: 5,6-Dialkyl-7-amino-triazolopyrimidine der Formel (I) in der die Substituenten folgende Bedeutung ha-  
ben: **R<sup>1</sup>** Alkyl oder Alkoxyalkyl, wobei die aliphatischen Gruppen gemäss der Beschreibung substituiert sein können; **R<sup>2</sup>** **CHR<sup>3</sup>CH<sub>3</sub>**,  
Cyclopropyl, **CH=CH<sub>2</sub>** oder **CH<sub>2</sub>CH=CH<sub>2</sub>**; **R<sup>3</sup>** Wasserstoff, **CH<sub>3</sub>** oder **CH<sub>2</sub>CH<sub>3</sub>**; Verfahren zur Herstellung dieser Verbindungen, sie  
enthaltende Mittel sowie ihre Verwendung zur Bekämpfung von pflanzenpathogenen Schadpilzen.

WO 2005/087773 A1



# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/002427

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D487/04 A01N43/90  
 //(C07D487/04, 249:00, 239:00)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 141 317 A (BASF AKTIENGESELLSCHAFT) 15 May 1985 (1985-05-15) cited in the application Seiten 9, 10, Verbindungen Nr. 21, 23, 42, 48; claims	1-13
A	WO 03/009687 A (BASF AKTIENGESELLSCHAFT; TORMO I BLASCO, JORDI; SAUTER, HUBERT; MUELLE) 6 February 2003 (2003-02-06) claims; examples 7-9	1-13
A	EP 0 215 382 A (BASF AKTIENGESELLSCHAFT) 25 March 1987 (1987-03-25) claims; tables 1a, 2, 3	1-7, 11-13
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"G" document member of the same patent family

Date of the actual completion of the international search

8 June 2005

Date of mailing of the international search report

16/06/2005

Name and mailing address of the ISA

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Authorized officer

Hass, C

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/002427

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 1 148 629 A (VEB. DEUTSCHES HYDRIERWERK RODLER) 16 April 1969 (1969-04-16) cited in the application page 1, line 10 - line 23	1
A	EP 0 770 615 A (AMERICAN CYANAMID COMPANY; BASF AKTIENGESELLSCHAFT) 2 May 1997 (1997-05-02) cited in the application claim 1	8,9
A	EP 0 614 113 A (MITSUBISHI PAPER MILLS, LTD; MITSUBISHI PAPER MILLS LTD) 7 September 1994 (1994-09-07) Seite 14, Verbindungen (II-3) und (II-6)	9

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/002427

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/002427

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0770615	A	SI 770615 T1	31-12-2003
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		US 5482815 A	09-01-1996

## A. KLASSIFIZIERUNG DES ANMELDUNGSGEGENSTANDES

IPK 7 C07D487/04 A01N43/90  
 //(C07D487/04, 249:00, 239:00)

Nach der Internationalen Patentklassifikation (IPK) oder nach der nationalen Klassifikation und der IPK

## B. RECHERCHIERTE GEBIETE

Recherchierter Mindestprüfstoff (Klassifikationssystem und Klassifikationssymbole)

IPK 7 C07D A01N

Recherchierte aber nicht zum Mindestprüfstoff gehörende Veröffentlichungen, soweit diese unter die recherchierten Gebiete fallen

Während der internationalen Recherche konsultierte elektronische Datenbank (Name der Datenbank und evtl. verwendete Suchbegriffe)

EPO-Internal, CHEM ABS Data

## C. ALS WESENTLICH ANGESEHENE UNTERLAGEN

Kategorie*	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden Teile	Betr. Anspruch Nr.
X	EP 0 141 317 A (BASF AKTIENGESELLSCHAFT) 15. Mai 1985 (1985-05-15) in der Anmeldung erwähnt Seiten 9, 10, Verbindungen Nr. 21, 23, 42, 48; Ansprüche	1-13
A	WO 03/009687 A (BASF AKTIENGESELLSCHAFT; TORMO I BLASCO, JORDI; SAUTER, HUBERT; MUELLE) 6. Februar 2003 (2003-02-06) Ansprüche; Beispiele 7-9	1-13
A	EP 0 215 382 A (BASF AKTIENGESELLSCHAFT) 25. März 1987 (1987-03-25) Ansprüche; Tabellen 1a, 2, 3	1-7, 11-13
	-/-	

☒ Weitere Veröffentlichungen sind der Fortsetzung von Feld C zu entnehmen

☒ Siehe Anhang Patentfamilie

\* Besondere Kategorien von angegebenen Veröffentlichungen :

"A" Veröffentlichung, die den allgemeinen Stand der Technik definiert, aber nicht als besonders bedeutsam anzusehen ist

"E" älteres Dokument, das jedoch erst am oder nach dem internationalen Anmeldedatum veröffentlicht worden ist

"L" Veröffentlichung, die geeignet ist, einen Prioritätsanspruch zweifelhaft erscheinen zu lassen, oder durch die das Veröffentlichungsdatum einer anderen im Recherchenbericht genannten Veröffentlichung belegt werden soll oder die aus einem anderen besonderen Grund angegeben ist (wie ausgeführt)

"O" Veröffentlichung, die sich auf eine mündliche Offenbarung, eine Benutzung, eine Ausstellung oder andere Maßnahmen bezieht

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"G" Veröffentlichung, die Mitglied derselben Patentfamilie ist

Datum des Abschlusses der internationalen Recherche

8. Juni 2005

Absendedatum des internationalen Recherchenberichts

16/06/2005

Name und Postanschrift der Internationalen Recherchenbehörde

Europäisches Patentamt, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Bevollmächtigter Bediensteter

Hass, C

## C.(Fortsetzung) ALS WESENTLICH ANGESEHENE UNTERLAGEN

Kategorie*	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden Teile	Betr. Anspruch Nr.
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Angaben zu Veröffentlichungen, die zur selben Patentfamilie gehören

Internationales Aktenzeichen

PCT/EP2005/002427

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Angaben zu Veröffentlichungen, die zur selben Patentfamilie gehören

Internationales Aktenzeichen

PCT/EP2005/002427

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# Exhibit B

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

In re Application of

BLASCO et al

Serial No. 10/589,953

Filed: March 8, 2005 as PCT international application

For: 5,6-Dialkyl-7-aminotriazolopyrimidines, their preparation and their use for controlling pathogenic fungi, and compositions comprising these compounds

**DECLARATION**

I, Egon Haden, Dr. agr., a citizen of the Federal Republic of Germany and residing at Bayernstraße 55, 67061 Ludwigshafen, Germany, hereby declare as follows:

I am fully trained agricultural engineer, having studied agricultural science at the Technical University of Stuttgart - Hohenheim, Germany, from 1975 to 1980;

From 1980 to 1985 I furthered my studies at the Institute of Plant Disease of the University of Hohenheim, and I was awarded my doctor's degree by the said university in 1985;

I joined BASF Aktiengesellschaft (now BASF SE) of 67056 Ludwigshafen, Germany, in 1984, and have since been working in the field of the characterization and screening of fungicidal substances, and am therefore fully conversant with the technical field to which the invention disclosed and claimed in application Serial No. 10/589,953 belongs.

The tests were carried out under my supervision in accordance with the instructions given in the specification of Appln. Ser. No. 10/589,953 or as described below.

**Comparative trials vs. EP 0 141 317 (D1)**

The spray solutions were prepared in several steps:

The stock solution were prepared: a mixture of acetone and/or dimethylsulfoxide and the wetting agent/emulsifier Wettol, which is based on ethoxylated alkylphenoles, in a relation (volume) solvent-emulsifier of 99 to 1 was added to 25 mg of the compound to give a total of 10 ml. Water was then added to total volume of 100 ml.

This stock solution was diluted with the described solvent-emulsifier-water mixture to the given concentration.

**Example 1 - Activity against late blight of tomatoes caused by *Phytophthora Infestans*, protective treatment**

Leaves of potted tomato plants were sprayed to runoff point with an aqueous suspension having the concentration of active compounds stated below. The next day, the leaves were infected with an aqueous sporangia suspension of *Phytophthora infestans*. The plants were then placed in a water-vapor-saturated chamber at temperatures between 18 and 20°C. After 6 days, the late blight on the untreated, but infected control plants had developed to such an extent that the infection could be determined visually in %.

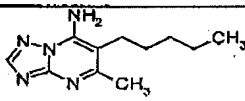
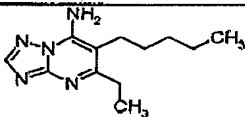
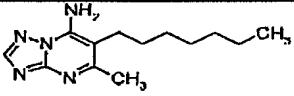
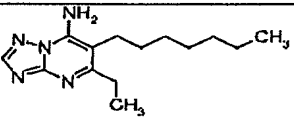
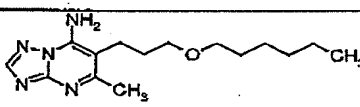
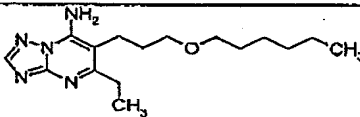
The efficacy (**E**) is calculated as follows using Abbot's formula:

$$E = (1 - \alpha/\beta) \cdot 100$$

$\alpha$  corresponds to the fungal infection of the treated plants in % and

$\beta$  corresponds to the fungal infection of the untreated (control) plants in %

An efficacy of 0 means that the infection level of the treated plants corresponds to that of the untreated control plants; an efficacy of 100 means that the treated plants were not infected.

Exp.-No.:	Compound No. In document	Structure	Attack in % at 63ppm
1	# 10 (D1)		20
2	Tab. I; # I-6 Invention		0
3	# 12 (D1)		40
4	Tab. I; # I-8 Invention		0
5	# 46 (D1)		30
6	Tab. I; # A-136 Invention		10
7	untreated		90

**Example 2 - Activity against late blight of tomatoes caused by *Phytophthora Infestans*, 3 days protective treatment**

Leaves of potted tomato plants were sprayed to runoff point with an aqueous suspension having the concentration of active compounds stated below. After 3 days the leaves were infected with an aqueous sporangia suspension of *Phytophthora infestans*. The plants were then placed in a water-vapor-saturated chamber at temperatures between 18 and 20°C. After 6 days, the late blight on the untreated, but infected control plants had developed to such an extent that the infection could be determined visually in %.

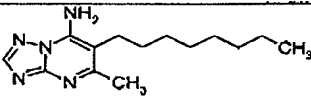
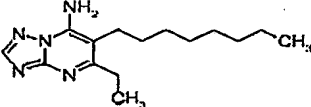
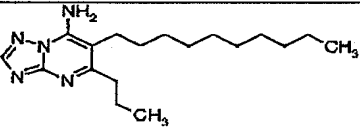
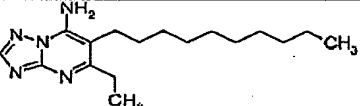
The efficacy (**E**) is calculated as follows using Abbot's formula:

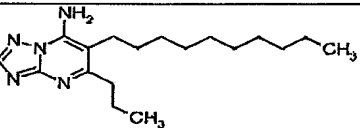
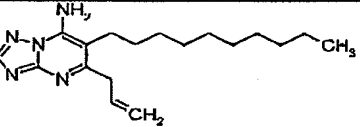
$$E = (1 - \alpha/\beta) \cdot 100$$

$\alpha$  corresponds to the fungal infection of the treated plants in % and

$\beta$  corresponds to the fungal infection of the untreated (control) plants in %

An efficacy of 0 means that the infection level of the treated plants corresponds to that of the untreated control plants; an efficacy of 100 means that the treated plants were not infected.

Exp.-No.:	Compound No. in document	Structure	Attack in % at 16ppm
8	# 15 (D1)		90
9	Tab. I; # I-2 Invention		10
10	# 21 (D1)		90
11	Tab. I; # I-10 Invention		10
12	untreated		90

Exp.-No.:	Compound No. in document	Structure	Attack in % at 250 ppm
13	# 21 (D1)		90
14	Tab. V; # A-65 Invention		5
15	untreated		90

### Example 3 - Preventative control of grey mold (*Botrytis cinerea*) on leaves of green pepper

Young seedlings of green pepper were grown in pots to the 2 to 3 leaf stage. These plants were sprayed to run-off with an aqueous suspension, containing the concentration of active ingredient or their mixture mentioned in the table below. The next day the treated plants were inoculated with a spore suspension of *Botrytis cinerea* in a 2 % aqueous biomalt solution. Then the trial plants were immediately transferred to a dark, humid chamber. After 5 days at 22 to 24°C and a relative humidity close to 100 % the extent of fungal attack on the leaves was visually assessed as % diseased leaf area.

The efficacy ( $E$ ) is calculated as follows using Abbot's formula:

$$E = (1 - \alpha/\beta) \cdot 100$$

$\alpha$  corresponds to the fungal infection of the treated plants in % and

$\beta$  corresponds to the fungal infection of the untreated (control) plants in %

An efficacy of 0 means that the infection level of the treated plants corresponds to that of the untreated control plants; an efficacy of 100 means that the treated plants were not infected.

Exp. No.	Compound No. in document	Structure	Efficacy (%) at 63ppm	Efficacy (%) at 250 ppm
16	Tab. 2; # A-65 Invention		15	15
17	# 21, D1		0	0

### Example 4 - Curative control of brown rust on wheat caused by *Puccinia recondita*

The first two developed leaves of pot-grown wheat seedling were dusted with spores of *Puccinia recondita*. To ensure the success the artificial inoculation, the plants were transferred to a humid chamber without light and a relative humidity of 95 to 99 % and 20 to 22°C for 24 h. The next day the plants were sprayed to run-off with an aqueous suspension, containing the concentration of active ingredient or their mixture as described below. The plants were allowed to air-dry. Then the trial plants were cultivated for 8 days in a greenhouse chamber at 22-26°C and a relative humidity between 65 and 70 %. The extent of fungal attack on the leaves was visually assessed as % diseased leaf area.

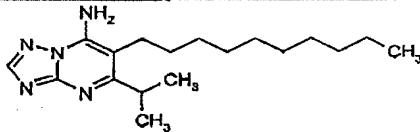
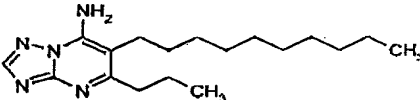
The efficacy ( $E$ ) is calculated as follows using Abbot's formula:

$$E = (1 - \alpha/\beta) \cdot 100$$

$\alpha$  corresponds to the fungal infection of the treated plants in % and

$\beta$  corresponds to the fungal infection of the untreated (control) plants in %

An efficacy of 0 means that the infection level of the treated plants corresponds to that of the untreated control plants; an efficacy of 100 means that the treated plants were not infected.

Exp. No.	Compound No. in document	Structure	Efficacy (%) at 63ppm	Efficacy (%) at 250 ppm
18	Tab. 2; # A-65 Invention		10	30
19	# 21, D1		0	0

I further declare that all statements made herein of my own knowledge are true and that all statements made on information or belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed at 67056 Ludwigshafen, Germany, February 19, 2010.



Signature of Declarant